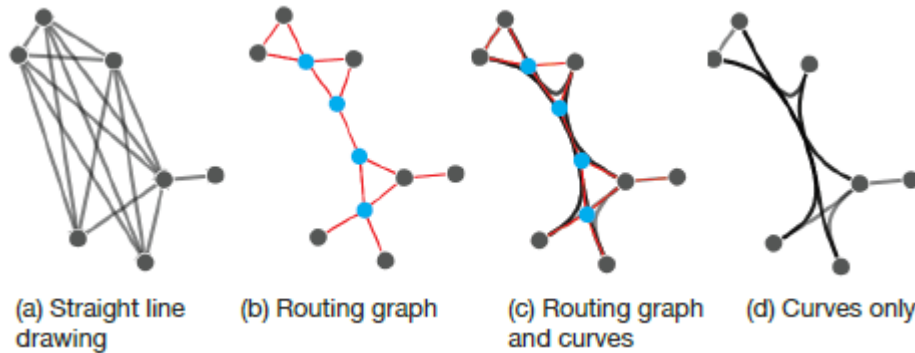


Weekly report

1 Done

1.1 Reading

1.1.1 **Towards Unambiguous Edge Bundling: Investigating Confluent Drawings for Network Visualization** (Tim Dwyer, tvcg)



This team has been focusing on network layout for several years. In this work, they present an algorithm to compute directed/undirected confluent bundles and to lay out nodes and edges bundles for any network. Besides, they give comprehensive evaluation about the effects of confluent drawing(CD). To construct a CD, we should generate routing nodes based on a power graph, firstly. Then, regarding the routing nodes among the shortest path as control nodes, the approach render edges by B-splines.

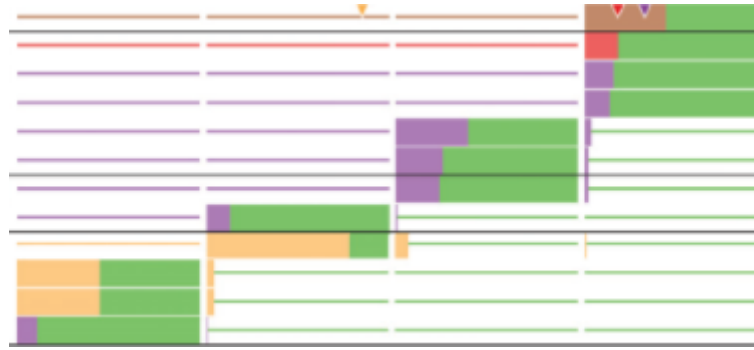
CD render networks with good effective in partial cases (all edge bundles are unambiguous), however, the implement is complex.

1.1.2 **How Good is 85%? A Survey Tool to Connect Classifier Evaluation to Acceptability of Accuracy** (Matthew Kay, chi)

This work was motivated by a persistent question in HCI and ubiquitous computing research with end-user feedback based on classifiers: is my classifier good enough? Authors introduced a new measure, acceptability of accuracy and developed and validated a survey instrument that connects classifier evaluation to acceptability of accuracy. Thier approach allows us to easily adopt an evaluation method that more closely matches users' perceptions of accuracy than does the oft-used unweighted F-measure. At the same time, this method yields insight into how to build the application's feedback and whether further work on the classifier faces diminishing returns.

1.1.3 **Visplause: Visual Data Quality Assessment of Many Time Series Using Plausibility Checks** (Harald Piringer, vast)

This paper described Visplause, a new visualization approach for supporting the routine assessment of data quality based on a series of automated plausibility checks. To display data in different scale simultaneously, they improve the scale-stack bar chart as shown in the follow chart.



1.1.1.4 **PROACT: Iterative Design of a Patient-Centered Visualization for Effective Prostate Cancer Health Risk Communication** (Remco Chang, tvcg)

This work develop a prototype for a patient-centered online risk communication tool (PROACT), intended to help patients with localized prostate cancer understand and compare their expected prognosis following active vs. conservative treatment.

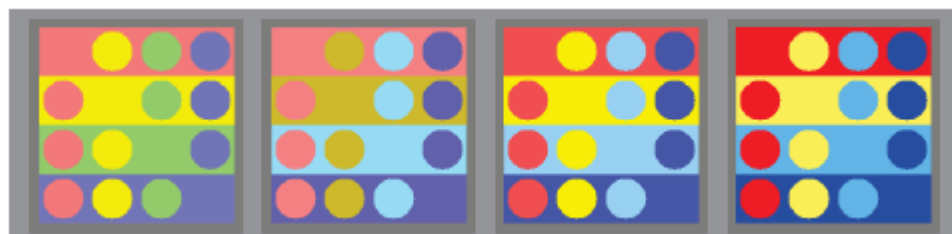
Furthermore, their evaluation shows that it is important for health risk communication tools to account for the users' heightened emotional state by first trying to "calm the user down" before presenting them with additional information.

Finally, this paper emphasize the value of iterative design, which contributes a lot.

1.1.1.5 **Categorical Colormap Optimization with Visualization Case Studies** (M. Chen, tvcg)

This is a novel approach for optimizing a categorical colormap algorithmically while enabling users to define initial metaphoric colors and set constraints for the optimization. The approach has three considerations including color space, distance metrics and constraints. To optimize the pre-defined initial categorical colormap, they define the optimization goals as:

- the perceptual distance between the colors should be maximized according to a distance metric;
- the user should be able to define constraints to limit undesired changes;
- the fixed background color and foreground color should be factored into the optimization process.



The specific optimization process could be completed by Nelder-Mead Simplex (NM), Simulating Annealing (SA), Genetic Algorithm (GA) or Comparison of the Algorithms.

- 1.2 Prepare the presentation of group meeting.
- 1.3 Collect interesting news about visualizations.